II. Listing of Claims

Please amend the claims as follows:

CLAIMS:

1. (Currently Amended) A covering agent for a top slag of a metallic melt bath in a metallurgical vessel, ~~in particular~~ of the type used in the steel industry, ~~containing~~ the covering agent comprising a material which melts on the melt bath and performs metallurgical work, wherein the material substantially comprises granules which have been rendered porous and ~~the~~ having a porosity ~~of which is~~ such that, at the temperature of the melt bath ~~temperature~~, a molten layer of liquid slag is formed on the melt bath, and a thermal barrier layer of the granules is formed above the molten layer of liquid slag.

2. (Currently Amended) The covering agent as claimed in claim 1, ~~which is present in~~ in which the granules have a grain size ~~fraction~~ of between 1 and 50 mm~~, in particular between 2 and 20 mm~~.

3. (New) The covering agent as claimed in claim 1, in which the granules have a grain size ~~fraction~~ of between 2 and 20 mm.

~~3~~ 4. (Currently Amended) The covering agent as claimed in claim 1 ~~and/or 2~~, in which ~~is a product~~ the granules are made up of shaped granules ~~and/~~ or a pelletized product.

~~4~~ 5. (Currently Amended) The covering agent as claimed in ~~one or more of claims 1 to 3~~ claim 1, in ~~which is~~ which the granules are a granulated foam product ~~and/~~ or an expanded, granulated product.

~~5~~ 6. (Currently Amended) The covering agent as claimed in ~~one or more of claims 1 to 4~~ claim 1, wherein the ~~grains~~ granules have a porosity produced by dewatering ~~and/~~ or calcining.

~~6~~ 7. (Currently Amended) The covering agent as claimed in ~~one or more of claims 1 to 5~~ claim 1, wherein the ~~grains~~ granules have a porosity produced by organic combustibles.

~~7~~ 8. (Currently Amended) The covering agent as claimed in ~~one or more of claims 1 to 6, which substantially comprises~~ claim 1, in which the covering agent further includes a calcium aluminate.

~~8~~ 9. (Currently Amended) The covering agent as claimed in ~~claim 7~~ claim 8, wherein the calcium ~~aluminates have~~ aluminate has the following chemical analysis and ratio:

CaO/Al_2O_3 from 0.25 to 4~~, in particular from 1.0 to 1.5~~,

with ~~preferably~~ up to 15% by mass of auxiliary phases, ~~in particular~~ and one or more of the group including MgO ~~and/or~~, $MgOSiO_2$ ~~and/or~~, TiO_2 ~~and/or~~, and Fe_2O_3 and/or alkali metals being present.

10. (New) The covering agent as claimed in claim 8, wherein the calcium aluminate has the following chemical analysis and ratio:

CaO/Al_2O_3 from 1.0 to 1.5,

with up to 15% by mass of auxiliary phases, and one or more of the group including MgO, $MgOSiO_2$, TiO_2, Fe_2O_3, and alkali metals being present.

~~9~~ 11. (Currently Amended) The covering agent as claimed in ~~one or more of claims 1 to 8~~ claim 1, wherein the ~~grains~~ granules have a porosity of from 5 to 70% by volume~~, in particular from 20 to 60% by volume~~.

12. (New) The covering agent as claimed in claim 1, wherein the granules have a porosity of from 20 to 60% by volume.

~~10~~ 13. (Currently Amended) A process for producing ~~the~~ a covering agent ~~as claimed in one or more of claims 1 to 9, in which~~ for a top slag of a metallic melt bath in a metallurgical vessel of the type used in the steel industry comprising the steps of reacting fine-particle mineral raw materials ~~which react~~ with one another at high temperatures and are suitable for ~~a~~ the top slag are mixed and heated until they react to form a mixture, ~~wherein~~ and further

a) providing at least one raw material which is dewatered ~~and/~~ or calcined so as to release water vapor ~~and/or~~ gaseous products ~~is used~~,

b) forming the mixture ~~is made~~ into a shapeable compound using a combustible binder,

c) shaping the shapeable compound ~~is shaped~~ to form material in ~~grain~~ granular form, and ~~in particular granulated to form granules or pelletized to form pellets,~~

d) heating the material in ~~grain~~ granular form ~~is heated in~~ such ~~a manner~~ that the binder is burnt out, generating pores ~~are generated~~ by dehydration ~~and/~~ or calcining, and then a ceramic bond ~~and/~~ or a sintered bond is produced between the raw materials.

~~11~~ 14. (Currently Amended) The process as claimed in ~~claim 10~~ claim 13, wherein milled raw materials with grain sizes of <90 µm are used.

~~12~~ 15. (Currently Amended) The process as claimed in ~~claim 10 and/or 11~~ claim 13, wherein the binders used are one or more selected from the group including water, water glass, synthetic resins, sulfite waste liquor, phosphate compounds and ~~/or~~ calcined lime.

16. (New) The process as claimed in claim 13 further comprising the step of using the covering agent to form a top slag melt and a thermal barrier layer on the metalic melt bath, as a monolayer coating on the metallic melt bath.

17. (New) The process as claim in claim 13 further comprising the step of using the covering agent to form a thermal barrier layer on the metallic melt bath, as a thermal barrier agent on a metallic bath.

~~13~~ 18. (Currently Amended) A process for producing ~~the~~ a covering agent ~~as claimed in one or more of claims 1 to 9, in which~~ for a top slag of a metallic melt bath in a metallurgical vessel of the type used in the steel industry, comprising the steps of reacting fine-particle mineral raw materials which react with one another at high temperatures and are suitable for ~~a~~ the top slag are mixed and heated until they react, ~~wherein~~

a) mixing the raw materials ~~are mixed~~ with ~~a~~ one or more of the group including ~~water~~ water, ~~and~~ a foaming agent ~~and/or~~, an expanding ~~agent~~ agent, and ~~/or~~ a foam, so that pores are introduced into ~~the aqueous compound~~ raw materials forming a mixture,

b) firing the ~~compound is fired~~ mixture until a ceramic bond ~~and/~~ or a sintered bond is produced forming a fired product.

~~14~~ 19. (Currently Amended) The process as claimed in ~~claim 13~~ claim 18, wherein the fired product is comminuted and classified.

~~15~~ 20. (Currently Amended) The process as claimed ~~in one or more of claims 10 to 14~~ claim 18, wherein organic combustibles are added to the mixture in order to render it porous.

~~16~~ 21. (Currently Amended) The process as claimed in ~~claim 15~~ claim 20, wherein one or more of paper fibers, sawdust, sawing chips, wood chips and/or styropor granules are added.

~~17~~ 22. (Currently Amended) The process as claimed in ~~one or more of claims 10 to 16~~ claim 18, wherein the raw materials are selected for producing calcium aluminates ~~are used~~.

~~18~~ 23. (Currently Amended) The process as claimed in ~~claim 17~~ claim 22, wherein raw materials which ensure the following chemistry and ratio in the mixture:

CaO/Al_2O_3 from 0.25 to 4~~, in particular from 1.0 to 1.5~~

are used.

24. (New) The process as claimed in claim 22, wherein the raw materials which ensure the following chemistry and ratio in the mixture:

CaO/Al_2O_3 from 1.0 to 1.5

are used.

~~19~~ 25. (Currently Amended) The process as claimed in ~~one or more of claims 10 to 18~~ claim 18, wherein the raw materials with a fineness of <90 µm are used.

~~20~~ 26. (Currently Amended) The process as claimed in ~~one or more of claims 10 to 19~~ claim 18, wherein the raw materials which contain up to 15% by mass of auxiliary phases are used.

~~21~~ 27. (Currently Amended) The process as claimed in ~~one or more of claims 10 to 20~~ claim 26, wherein the auxiliary phases are one or more of the group including MgO ~~and/ or~~, $MgOSiO_2$ ~~and/ or~~, TiO_2, and ~~/or~~ Fe_2O_3 and/or alkali metals.

~~22~~ 28. (Currently Amended) The process as claimed in ~~one or more of claims 10 to 21~~ claim 18, wherein the firing step is carried out at temperatures of up to 1250°C.

~~23~~ 29. (Currently Amended) The process as claimed in ~~one or more of claims 10 to 22~~ claim 18, wherein dewatering ~~and/~~ or calcining raw materials are used.

~~24~~ 30. (Currently Amended) ~~The use of a~~ The process as claimed in claim 18 further comprising the step of using the ~~top slag~~ covering agent ~~which has been rendered porous and forms~~ to form a top slag melt and a thermal barrier layer on ~~a~~ the ~~metallurgical~~ metallic melt bath, ~~in particular of the top slag agent as claimed in one or more of claims 1 to 9, in particular of a top slag agent produced as described in one or more of claims 10 to 23~~, as a monolayer coating on ~~a~~ the metal ~~melt~~ metallic bath~~, in particular on a steel melt bath, in particular used in the steel industry~~.

~~25~~ 31. (Currently Amended) ~~The use of a~~ The process as claimed in Claim 18 further comprising the step of using the ~~top slag~~ covering agent ~~which has been rendered porous and forms~~ to form a thermal barrier layer on ~~a metallurgical~~ the metallic melt bath, ~~in particular of the top slag agent,~~ as a thermal barrier agent on ~~a melt~~ the metallic melt bath ~~or a top slag melt, in particular used in the steel industry~~.